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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,832	02/18/2004	Benoit Brule	FR-AM1929 NP	3754
31684	7590	11/19/2009	EXAMINER	
ARKEMA INC. PATENT DEPARTMENT - 26TH FLOOR 2000 MARKET STREET PHILADELPHIA, PA 19103-3222			WOODWARD, ANA LUCRECIA	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			11/19/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

carol.hill@arkema.com
steven.boyd@arkema.com
thomas.roland@arkema.com

Office Action Summary	Application No. 10/780,832	Applicant(s) BRULE, BENOIT	
	Examiner Ana L. Woodward	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-16 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 11-16 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 11-16 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The present claims embrace an embodiment which does not have express antecedent basis in the specification disclosure, i.e., a structure comprising outer layer (1), tie layer (2), a second tie layer and inner layer (4), wherein said structure does NOT contain optional layer (3). The specification, page 24, clearly states that the second optional tie layer "does not exist if no layer (3) is present".

2. Claims 11-16 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 11, it is unclear as to what is meant by "functionalized" polyolefins as tie layer (2).

In claim 11, it is unclear as to whether the optional layer (3) can be either an EVOH or a tie layer. It is unclear if or how said additional tie layer distinguishes over the tie layer (2).

In claims 12, 13 and 16, there is no express antecedent basis for layer "(5)".

In claim 14, there is no express antecedent basis for more than one layer having a composition comprising said polyamide/polyolefin blend.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 6,090,459 (Jadamus et al) in view of U.S. 5,376,712 (Nakajima) and U.S. 6,617,377 (Chacko) as per reasons of record and further in view of U.S. 6,615,877 (Zimmer et al).

Jadamus et al disclose multilayer pipes for the transport of petrochemical materials comprising:

i) an outer layer of polyamide 12, reading on the presently claimed layer (1); and

iv) an inner layer of an impact-modified polyamide ((VESTAMID) and graphite fibrils, reading on the presently claimed layer (4).

In addition to said outer and inner layers, further layers may be present (column 2, line 14).

Jadamus et al do not expressly provide examples of structures having the presently claimed tie layer (2) between the outer and inner polyamide layers. Zimmer et al discloses similar-such multilayered structures and teaches that bonding layers (tie

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layers) can be further incorporated between adjoining polyamide layers for the purpose of increasing the bonding characteristics said polyamide layers (column 2, lines 46-65, Figures 1 and 3). Specific bonding layers are composed of polyolefins having functional groups, which meet the presently claimed "functionalized polyolefins" (see Zimmer column 2, lines 58-59, column 3, lines 55-56). Accordingly, it would have been obvious to one having ordinary skill in the art to have incorporated a bonding layer composed of functionalized polyolefin between the outer and inner polyamide-based layers of Jadamus et al, for its expected adhesive bonding effect. Accordingly, no patentability can be seen in the presently claimed subject matter.

As to new claim 19, it would have been obvious to one having ordinary skill in the art to have further incorporated an additional polyamide layer (4a) between the functionalized polyolefin bonding layer and inner polyamide-based of the above-modified structure with the reasonable expectation of success, in accordance with the teachings of Zimmer et al.

Response to Arguments

5. Applicant's arguments filed July 20, 2009 have been fully considered but they are not persuasive.

It is maintained that it would have been obvious to one having ordinary skill in the art to have further incorporated the additional layer(s) required by the present claims into the structure of Jadamus et al, for the expected additive effect of providing said layer(s), in keeping with the disclosure of Zimmer et al. It is clearly within the scope of Jadamus et al to produce multilayered structures comprising additional layers.

Applicants' claimed multi-layered structures are deemed to be within the sphere of obviousness encompassed by the reference disclosures to one having ordinary skill in the art. In this regard, the commonality between the various multi-layered embodiments exemplified by Zimmer et al and Jadamus et al is noted.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ana L. Woodward/
Primary Examiner
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